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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial Number: 09/682,279
Filing Date: 8/13/2001
Applicant(s): Cecil Earl Williams, Jr.
Entitled: ILLUMINATING LIGHT DISPLAY APPARATUS
FOR USB DEVICES
Examiner: Trieu Van Thanh
Group Art Unit: 2632
Attorney Docket No.: 1067-2

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APPEAL BRIEF PURSUANT TO 37 C.F.R. § 1.192

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TABLE OF CONTENTS

I.	Real Party of Interest	1
II.	Related Appeals and Interferences	1
III.	Status of Claims	1
IV.	Status of Amendments	1
V.	Summary of the Invention	1-2
VI.	Issues on Appeal	2
VII.	Grouping of Claims for the Purposes of this Appeal	3
VIII.	Argument	
A.	<u>The Examiner's Rejection</u>	3-4
B.	<u>The Language of Claim 8 Particularly Points Out And Distinctly Claims The Subject Matter Which Applicant Regards As The Invention</u>	4-5
C.	<u>The References Are Not Properly Combinable</u>	6-8
D.	<u>The References, Even if Properly Combined, Do Not Render Obvious The Pending Claims</u>	9, 10
IX.	Conclusion	10, 11
	APPENDIX A – CLAIMS ON APPEAL	A

I. Real Party of Interest

The real party in interest is Cecil E. Williams, Jr. of 3171 La Mirage Drive, Lauderhill, Florida 33319.

II. Related Appeals and Interferences

None.

III. Status of Claims

Claims 5-8 are currently pending in the application, Serial Number 09/682,279. Claims 7-8 stand rejected under 35 U.S.C. § 112, second paragraph. Claims 5-8 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,615,945 to Tseng in view of U.S. Patent No. 5,938,770 to Kim. Claim 7 is being canceled via a separate amendment and is not subject to appeal. Therefore, Claims 5-6, and 8 are hereby subject to appeal.

IV. Status of Amendments

Amendment canceling Claim 7 is being filed concurrently with this Appeal Brief. No other amendments have been filed subsequent to the Examiner's final rejection.

V. Summary of the Invention

The present invention is directed to a light apparatus that is adapted to utilize a Universal Serial Bus (USB) connector on a stationary or portable electronic device having a USB connector as a source to power the light display apparatus. The apparatus as shown in FIG. 1 includes a light element 104 located at one end of a standard, flexible USB cable 102 that

includes a thin, flexible, bendable stabilizing agent therein. The opposing end of cable 102 is connected to the standard USB connector 101 of an electronic device such as, for example, a keyboard or a portable laptop computer (as shown in FIGS. 7a and 7b). Power from the PC/laptop illuminates the light element 104 via the USB connector 101 and cable 102. The flexible, stabilizing agent within cable 102 (shown in FIG. 2a) allows the light element to be positioned and oriented as desired. A shielding device, best shown in FIG. 2, may be included to partially cover light element 104 to further direct the light emanating therefrom. An optional on/off switch may be included proximate light element 104, as shown in FIG. 3.

The present invention functions with any electronic device having a USB connector and provides the user with a source of illumination for the area proximate the monitor or display of, for example, a DVD Player, digital VCR, camcorder, cellular telephone, radio, PC, laptop, PDA or other electronic device without a separate power source such as batteries or an AC power supply.

VI. Issues on Appeal

1. Whether Claim 8 particularly points out and distinctly claims the subject matter which the Applicant regards as the invention.
2. Whether the Examiner improperly combines the teachings of U.S. Patent No. 5,615,945 to Tseng with U.S. Patent No. 5,938,770 to Kim in an attempt to argue that claims 5-8 are obvious.
3. Whether Claims 5-6, and 8 distinguish over the combined teachings of Tseng and Kim, assuming that these references are properly combined.

VII. Grouping of Claims for the Purposes of this Appeal

Claims 5-6 and 8 stand and fall together.

VIII. Argument

A. The Examiner's Rejection

Claims 7 and 8 were rejected by the Examiner under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Claim 7 has been canceled and therefore is not a claim subject to appeal. The Examiner argues that the language of Claim 8, namely, "the USB wire utilizes only the V_{BUS} and the GND wire" is unclear and indefinite because the specification does not clearly illustrate which wires are utilized only for providing electrical power. *Final Rejection mailed February 4, 2003, page 2.*

Claims 5-8 were rejected by the Examiner under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,615,945 to Tseng ("Tseng") in view of U.S. Patent No. 5,938,770 to Kim ("Kim"). Specifically, the Examiner states that Tseng discloses:

"a light device for use with a computer including an elongated, hollow, flexible neck 1 (flexible, tubular and stabilizing agent), a plug 3 fastened to the flexible neck at one end for connection to an electrical socket 4 on the computer via a plurality of contact pins 32 and a lamp assembly 2 fastened to the flexible neck 1 at an opposite end and connected to the plug by electrical wires 33."

Final Rejection mailed February 4, 2003, page 3.

The Examiner states that Tseng is silent regarding a USB electronically coupled to the first end of an elongate, standard USB wire, but that Tseng teaches that the plug is fastened to the

electric socket on the computer, which is used by the interface card of the computer. The

Examiner then states that Kim discloses:

“a keyboard 12, other peripheral devices such as a printer 14, a light pen 52, a mouse 52, a plotter, a speaker 72 and/or a microphone 84 are connected to a personal computer 10. The downstream ports DP4 and DP5 of the keyboard 12 are respectively connected to USB device connectors DC4 and DC5 of the light pen 52 and mouse 53.”

Final Rejection mailed February 4, 2003, page 3.

The Examiner argues that it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the USB ports and connectors of Kim for the plug and socket of Tseng for connecting a light device to a personal computer since “the computer is not provided with a plug and a play function, it is difficult for a user to connect the peripheral devices to the computer, because the peripheral devices such as the keyboard, monitor, printer, light pen, mouse, plotter are all complicated to connect to the personal computer.” Thus, argues the Examiner, “a USB system has been developed to make it easier and quicker for the user to connect the peripheral devices to the computer . . .”

B. The Language of Claim 8 Particularly Points Out And Distinctly Claims The Subject Matter Which Applicant Regards As The Invention

Applicant’s patent application, Serial No. 09/682,279, provides sufficient support for the language of Claim 8. FIGS. 1a and 2a of the Applicant’s drawings illustrate a typical USB shielded cable. The cut-away views of each figure show four internal wires including a V_{BUS} wire (Red), a ground wire (Black), and data wires (D+ and D-). FIG. 2a shows the same four wires in addition to the flexible stabilizing agent. In the Summary of Invention, Applicant

describes his invention as simplifying the process of attaching the light source to any USB connector “for its power source”.

Further, Claim 6 has not been rejected under 35 U.S.C. § 112; therefore, the Examiner agrees that the limitations of Claim 6 find support in the application. Since Claim 6 is a part of the application and Claim 6 recites that “said USB wire does not transfer data” (i.e. the D+ and D- wires *are not used*), the only remaining wires are the V_{BUS} and GND wires, as recited in Claim 8. Therefore, the Examiner’s argument that the language of Claim 8 stating that the “USB wire utilizes only the V_{BUS} and the GND wire is unclear and indefinite because the specification does not clearly illustrate which wires are utilized only for providing electrical power” is erroneous. The application *does* clearly illustrate which wires are used for electrical power. The application, i.e. Claim 6, states that no data is being transferred from the USB connector to the light source. FIGS. 1a and 2a clearly show the four wires of a standard USB cable. Two of the four wires (the D+ and D- wires) *only transfer data*, and since these wires are not being used, the only remaining wires left within a standard USB cable are the V_{BUS} and GND wires (Claim 8) for transferring power and not data (Claim 6). Claim 8 therefore particularly points out and distinctly claims the subject matter which the Applicant regards as his invention.

Because a power wire, i.e. V_{BUS} wire, and a ground wire, i.e. the GND wire, are elements present in every standard USB cable, and because the specification of the application states that the invention provides only power (to the light source) and not data signals, Claim 8 is clearly supported, since the only combination of wires in a USB cable that can possibly supply power to the light source are the V_{BUS} (power) wire and the GND wire.

C. **The References Are Not Properly Combinable**

In order to reject a claim or claims for obviousness, based upon more than one reference, the Examiner must present some suggestion or motivation to combine the references, a reasonable expectation of success resulting from the combination, and the combined references must teach all of the claim limitations. *Manual of Patent Examining Procedure Section 2142*. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must not be found in the applicant's disclosure, *but in the prior art itself*. *In re Vaeck*, 947 F.2d 488 (Fed.Cir. 1991) (*emphasis added*). The Examiner has not provided any evidence that the cited references provide such suggestion or motivation to combine the references.

The Tseng patent teaches a lamp assembly 2 for use with computers (Abstract). One end of the lamp assembly 2 is coupled to a flexible cable 1 (FIG. 2 and col. 2, l. 24-30). The opposing end of cable 1 is inserted into an electric socket 4 of the computer (col. 2, l. 61-62). Tseng does not disclose or even suggest the use of a USB connector for coupling a flexible cable 1 to a light source in order to provide power to the light source. The Examiner acknowledges this in the Final Office Action, by stating that Tseng discloses "a light device for use with a computer" and "Tseng silence [*sic*] about the universal serial bus (USB) electronically coupled to [a] first end of the elongate, standard USB wire." *Final Rejection mailed February 4, 2003, page 3*.

On the other hand, the patent to Kim discloses a computer monitor that allows for the operation of peripheral devices connected thereto to be operated with a host power supply voltage provided via host-connected hub ports, even though power from a power supply source in the monitor has been cut off (Kim, col. 2, l. 43-48, Abstract). The device in Kim is also directed at detecting when the power supply voltage to USB devices is beyond a rated voltage

and to initiate a shutoff of an abnormally high voltage to protect the USB devices from damage (Kim, col. 2, l. 49-54). Kim is *not* aimed at seeking alternative ways to provide power to a lamp assembly attached to an electronic device via use of a standard USB connector and cable.

Therefore, Tseng addresses the problem of providing light to a region proximate a computer by utilizing a specific electric socket of a computer. Kim addresses the problem of supplying a power supply voltage from an internal power supply within the monitor via the use of a sophisticated hardware such as a power level detector, a monitor power switching system, logic circuitry for generating switching control signals, and means for detecting the level of supply voltage to the peripheral devices to prevent damage to the peripheral devices. There is simply no correlation between the two devices, no common problem addressed, and no motivation, either expressed or implied to combine the disclosures of the two patents in order to render Applicant's claims obvious.

The Examiner argues that simply because Kim discloses a USB connector, and that "it is difficult for a user to connect the peripheral devices to the computer", one of ordinary skill in the art would have found it obvious to substitute the USB connector of Kim for the plug and socket of Tseng in order to connect the flexible light device to a personal computer. *Final Rejection mailed February 4, 2003, page 4*. The Examiner goes beyond the aim and purpose of the device disclosed in Kim and argues that the disclosures of the Tseng and Kim patents *themselves* provide adequate motivation to combine the two devices to render Applicant's claims obvious. The Examiner goes beyond the intent of the Tseng and Kim patents and attempts to combine two patents that have very different purposes and attempt to solve two very different problems in different ways with different structures.

The monitor system disclosed in Kim must be viewed as a whole, not in individual parts, and attention must be given to the problem the inventor was trying to solve at the time of his invention. *In re Wright*, 828 F.2d 1216, 1219 (Fed.Cir. 1988). The same must be done for the device in Tseng. Neither reference discusses the possibility of powering a lamp assembly via the USB connector and cable of an electronic device.

The Examiner errs in focusing on individual elements of the cited references, by picking and choosing elements in an attempt to recreate Applicant's invention through hindsight. The Federal Circuit has ruled that:

[I]t is the invention as a whole that must be considered in obviousness determinations. The invention as a whole embraces the structure, its properties, and the problem it solves . . . The determination of whether a novel structure is or is not 'obvious' requires cognizance of the properties of that structure and the problem which it solves, viewed in light of the teachings of the prior art . . .

In re Wright at 1219 (Fed.Cir. 1988).

Applicant's invention, when considered as a whole, solves a problem, namely the problem of insufficient lighting when using an electronic device such as a desktop PC, a laptop computer or a video game. It solves the problem by utilizing a USB connector and standard USB cable having a flexible, yet sturdy stabilizing agent therein, to connect and to provide power (and only power) to a light assembly. Neither of the cited references, as a whole, addresses the same problem as is addressed by Applicant and discloses or suggests the solution as provided by the Applicant, and as recited in Applicant's claims.

Therefore, the Examiner's rejection should be reversed based upon the lack of any suggestion or motivation to combine the cited references

D. The References Even If Properly Combined, Do Not Render Obvious Claims 6 and 8

Even if combined, Tseng and Kim do not disclose the features of Applicant's invention disclosed in Claims 6 and 8. Applicant provides an illuminating device comprising an elongated, standard USB wire. The wire comprises a flexible, tubular stabilizing agent which is easily bendable, having a first end and a second end, and an illuminating light or lights electronically coupled to the second end of the elongated, standard USB wire, wherein the USB wire does not transfer data.

Tseng discloses a light assembly coupled to a standard electric socket in a computer via a flexible cable. Kim discloses a USB connector and cable coupled at one end to a computer and coupled at the opposing end of the cable to a peripheral device such as a printer, mouse, light pen, plotter, speaker and/or microphone. The combination of the device disclosed in Kim and the device disclosed in Tseng would produce a wire connected to peripheral devices and a light assembly, (via either the USB port or a standard electrical socket on a computer), transferring *both* power and data signals.

The combination of the features of Tseng and Kim do not provide an illuminating device having a standard USB wire wherein the USB wire does not transfer any data, as provided by Applicant's Claim 6. Kim discloses peripheral devices, each of which is coupled to a computer via a USB cable, using both the data and the power wires of the USB cable. Tseng, while requiring power signals to be transferred to the light assembly, does not disclose or even suggest that the power signals be transferred via a USB connection. It is concerned specifically with a lighting device for use with a computer and does not disclose or suggest use of a lighting device with electronic devices having a USB port and connector. Further, the combination of the

teachings of Tseng and Kim does not provide an illuminating device having a standard USB wire wherein the USB wire utilizes *only* the V_{BUS} wire and the GND wire, as provided by Applicant's Claim 8.

IX. Conclusion

Claim 5 recites "an illuminating device for the Universal Serial Bus (USB) comprising an elongated, standard USB wire comprising a flexible, tubular stabilizing agent which is easily bendable, and having a first end and a second end", wherein "an illuminating light is electronically coupled to the second end of said elongated, standard USB wire". Neither the Tseng reference or the Kim reference teaches or suggests powering a light via use of a USB cable and the USB connector of a standard electronic device. Tseng does not teach or suggest Applicant's invention since it fails to even mention the use of a USB connector. Kim does not teach or suggest Applicant's invention since it does not address the same problem as addressed by Applicant's invention. The Examiner has failed to show that there exists any suggestion or motivation to combine the two references to achieve Applicant's claimed invention. Claims 6 and 8 depend from Claim 5 and are therefore also deemed allowable. In addition, Claim 6 recites that the USB wire does not transfer data. Neither of the references discloses an illuminating device that receives *only power and not data* from an electronic device via the USB cable and USB connector.

Finally, Claim 8 finds full support in the application, and identifies the two wires within the USB that provide power to the light assembly. Specifically, FIGS. 1A and 2A, and Claim 6 all support the recitation in Claim 8 of a USB cable that supplies power to an illumination device

via only the V_{BUS} and Ground wires. Thus, Claim 8 clearly points out and distinctly claims the subject matter which Applicant regards as the invention.

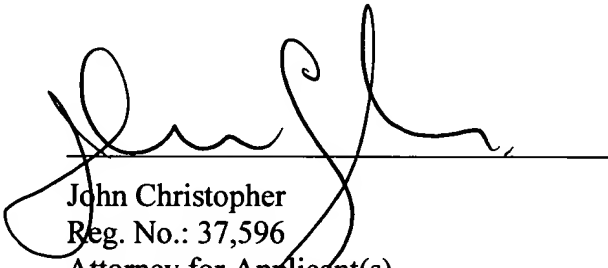
Therefore, for the reasons stated above, Claims 5, 6 and 8 clearly distinguish over the cited references.

APPENDIX A

CLAIMS ON APPEAL

5. An illuminating device for the Universal Serial Bus (USB) comprising:
- a. an elongated, standard USB wire comprising:
 - i. a flexible, tubular stabilizing agent which is easily bendable, and
 - ii. having a first end and a second end;
 - b. an illuminating light(s) electronically coupled to said second end of said elongated, standard USB wire
6. The illuminating device of claim 5 wherein said USB wire does not transfer data.
8. The illuminating device of claim 5 wherein said USB wire utilizes only the V_{BUS} wire and the GND wire.

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